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**Cc:** [Rice, Kacie](#); [Turner, Philip](#)  
**Subject:** EPA comments on the Draft Wilcox Oil Feasibility Study, Revision 00-set 1  
**Date:** Wednesday, February 24, 2021 3:18:42 PM  
**Attachments:** [FS and PRGs.msg](#)  
[Imperial Refining FS report reduced.pdf](#)  
[RE Wilcox Oil Data Gap Tech Memo 24Aug20text.msg](#)

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Pat, please find listed below comments on the draft FS. These are comments through Section 2. I am still reviewing the remaining of the report, but thought it prudent to provide these early given that we have limited time to revise. Todd has indicated that he will provide comments by Friday, and I will work to do the same, but the rest may not get to you until next week.

**Please note: a revised FS will need to be provided by March 19, 2021.**

- The PRG memos for HH and ECO need to be included as attachments or appendices.
- Section 2 (an example report is provided for reference): This section needs to be re-structured. There needs to be a summary of activities from the start to finish that show how the data were gathered, how the data were evaluated in the risk assessments, and then how those data along with the risk assessment results identified the COPCs. This list of COPCs should be the only list discussed in the FS and there should be no further discussion of the RSLs.
  - Section 2.7: out of place. Much of this information can be provided under the technology evaluation portion of the report.
  - Add Section summarizing the HHRA: scenarios evaluated, where risk was identified and the list of COPCs, and the refinement provided in the PRG memo.
  - Add Section summarizing the ECO risk: scenarios evaluated, where risk was identified and the list of COPCs, and the refinement provided in the PRG memo.
  - Section 2.8 should not be here, but should be in the GW technology section of the report or the screening section of the report.
- Section 2.1, East Tank Farm: all residential properties are occupied. Please revise text.
- Section 2.2.2, revise the last two sentences to the following: *"This source control action is an early/interim action that does not constitute the final remedy for the Site, therefore, any subsequent actions to address the remaining risks and threats posed by the site conditions will be documented in a final Site-wide decision document. This FS Report provides support for the Site-wide decision document."*
- Section 2.3:
  - Paragraph 3, Revise text: Replace loading dock area with Lorraine Process area.
  - Paragraph 4: Revise sentence to the following: *"Storage tanks, refinery-related debris and piping still remain in the Wilcox Process Area while evidence remains of former tank berms that were cut and leveled in the East Tank Farm (EA 2020a)."*
- Section 2.4:

- this is not correct. Reference email and summary sent on 10-2-20: *“The assumption is that the ETF, LPA, and the residential properties in the WPA will be used for residential in the future. The remaining portion of Wilcox is assumed to be industrial and the 400 mg/kg lead PRG will apply.”*
  - Additionally, reference section 3.6.2 in the RI. Use the language already developed.
  - Revise second paragraph to the following: *“Residential properties associated with the North Tank Farm, the Lorraine Process Area and the Wilcox process area are currently on public water supply which is supplied by 4 wells approximately 400 feet (ft) deep in the Vamoose-Ada aquifer. Residences located on or near the East Tank Farm obtain water from individual ground water wells set in the Barnsdall Formation which is much shallower than the Vamoose-Ada aquifer (EA 2020a).”*
- Section 2.5: refer to section 3.2 of the RI and revise sentences consistent with the RI.
- Section 2.6:
  - Remove the reference to the August 2020 sampling event. The August event is not summarized in the RI but rather in this document; therefore, the sample summary provided does not include the August 2020 field event. It should be listed out separately to summarize the data collected.
  - The totals provided here are not consistent with that reported in the RI and need to be revised.
  - The indoor air sampling statement needs to be deleted and replaced with the final conclusion from the HHRA Section 2.2.2.3 *“Indoor air samples from existing buildings within the Lorraine Process Area and Wilcox Process Area did reveal COPCs. However, sub-slab soil gas samples did not reveal any COPCs below these buildings. As a result, the indoor air COPCs are likely a result of indoor source areas and not vapor intrusion from groundwater. Therefore, vapor intrusion from groundwater into existing buildings at the site is not considered complete, and indoor air COPCs were not assessed in the HHRA.”*
- Section 2.6.1:
  - The following statement is made: *“The waste samples collected at the site and test pits were used to determine treatment and disposal alternatives for the waste materials under the Source Control ROD (EPA 2018). Therefore, the waste materials are not included in this FS.”* This is incorrect. Although data were used to assist in development of the Source Control ROD, not all identified waste locations are addressed; therefore, all remaining waste data and locations should be compared to the results of the HHRA and ECO risk assessment and if found to exceed the COPCs then they will be included and evaluated in the FS.
  - The following statement is made: *Soil with lead concentrations exceeding 800 milligrams per kilogram (mg/kg) will be removed during the removal action.”* This is not totally accurate as all data points exceeding 800 mg/kg will not be removed. The only area being addressed for lead at concentrations >800mg/kg under the

Source Control ROD is the lead additive area. Additionally, it is not a removal action. It is a remedial action.

- Section 2.6.2: This section does not accurately summarize the HHRA and the revisions that were made regarding benzo(a)pyrene. This section needs review and revision for consistency with the PRG Memo and the additional HHRA review based on a typical residential size plot.
  - This Section should summarize the PRG Memo and the resulting risk and COCs. There should be no mention of screening values because the risk assessments are complete and PRGs are identified.
- Section 2.7:
  - paragraph three, sentence one: delete the words 'majority of the'.
  - Refer to comment 2.6.2 above.
  - LNAPL discussion:
    - Please reference the data gap memo figure
    - Additionally, soil samples collected of this material on both Lorraine and Wilcox at these locations should be discussed in terms of risk. The HHRA did not identify unacceptable risk associated with the described LNAPL. Look in RI. This appears to be a data gap, actual sample of the LNAPL on Lorraine?
    - Is the LNAPL a source to the GW in the area mapped on Lorraine?
- Section 2.8: Based on the fact that there are data gaps, I assume the purpose of this section is to discuss the potential technologies that can be evaluated to address ground water; however, there needs to be a conclusion paragraph that further explains that based on data gaps the evaluation is taken no further and the remainder of the report focuses on soil.
  - Two additional options would include natural attenuation, but more data is needed, as well as perhaps the pursuit of a TI waiver, which too needs additional data. Refer to the 10-29-20 email attached.

GW: in the time and budget remaining, will the HH risk assessor be able to provide a summary of the GW risks and proposed PRGs? Those COPC with ARARs (i.e., MCLs) are straight forward; however, are there any other contaminants that present a significant risk and require a PRG?

**Phil**, can you weigh in on this approach or need?

Data Gap Tech Memo

Section 3.1, paragraph 2: change Sandy Creek to Sand Creek.

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